Desktop Octave Integrating Reflectometer SM120TB

Features

- Manual pull-out, convenient and fast.
- Computer control, fast and accurate measurement.
- Automatic calculation of multi-point average reflectivity.
- Ultra-long life light source.
- Reasonable structural design, simple operation and convenient maintenance.
- Small and light, easy to carry.
- Ensure stable operation of the equipment without frequent calibration.

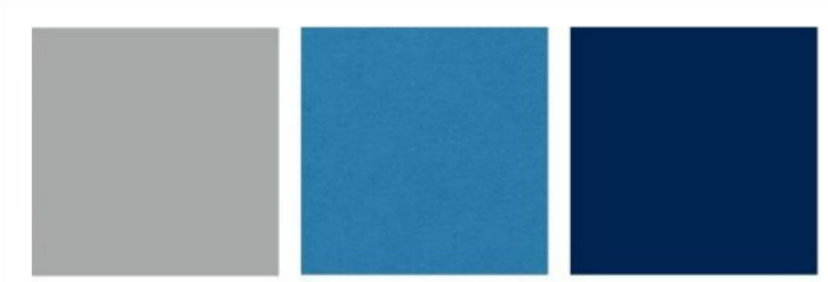
Application

Solar Photovoltaic Industry

Description

In the field of solar cell manufacturing, obtaining the reflectivity of solar silicon wafers is extremely important for production control and research, but due to the special surface of the velvet, it is very difficult to measure its reflectivity.

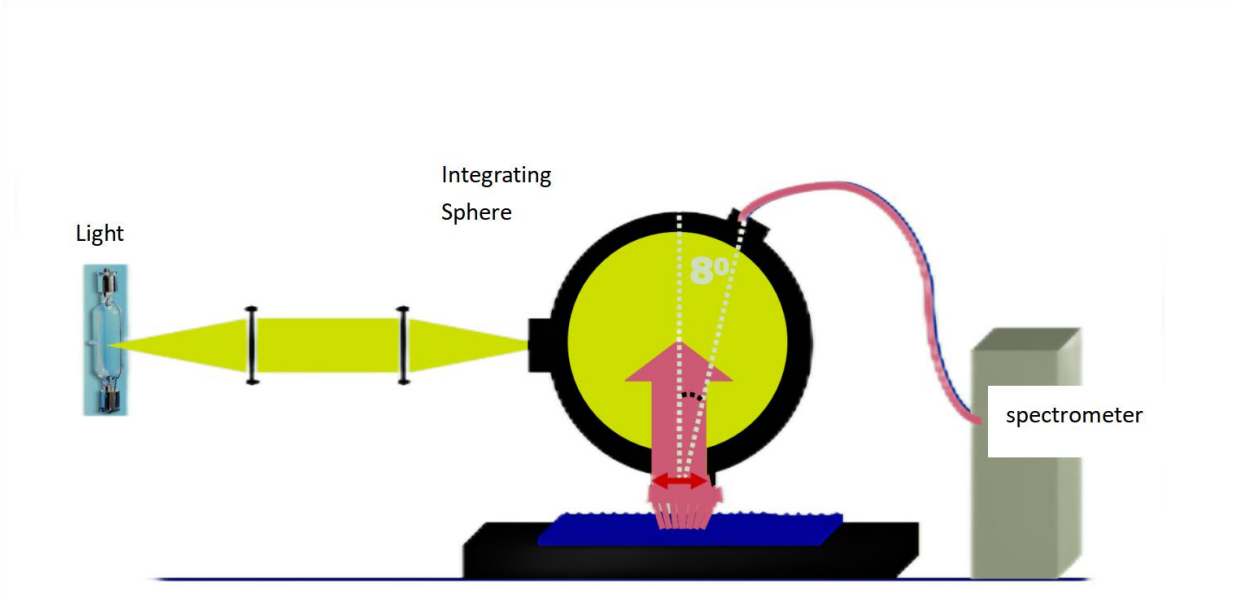
Optosky has launched a new desktop octave-angle integral reflectometer SM120TB based on ISO7724 and DIN5033 standards and combined with years of experience in spectral instrument development. It is the best solution to this problem. SM120TB is used in the monitoring of the cell velvet process, providing customers with an effective detection solution for cell quality control and loss reduction.



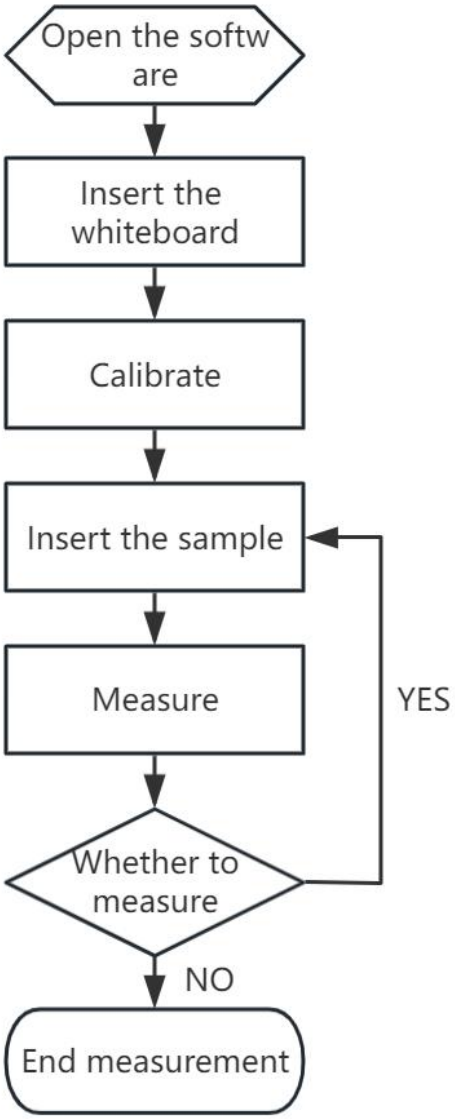
Polishing	Acid|Alkali Texturing	PECVD coating
Test the reflectivity of the polished sheet.	Test the reflectivity after texturing.	Testing the effect of silicon carbide coating.

1. Principle

Desktop 8-degree angle integrating reflectometer - SM120TB is also called suede reflectivity meter. Its principle is to excite the battery cell through diffuse reflection, and then use a spectrometer to detect at an angle of 8 degrees. Therefore, SM120TB is also referred to as the fully automatic D8 integrating reflectometer. Its principle diagram is shown in the figure below.



2. Work process



3. Parameter

Item	Specifications
Lighting conditions	D8 (integrating sphere diffuse illumination, 8° angle reception)
Wavelength range	360nm-1050nm
Reflectivity measurement range	0 ~ 100%
Single-point sampling time	2 seconds
Measurement/illumination aperture	10 mm
Measurement distance	1mm~10mm
Reflectivity accuracy	Better than 0.2%
Electronic dynamic range	65535 : 1
Test repeatability	Better than 1%
Light source power	Halogen lamp, 100W
Light source lifespan	More than 3000hours
Applicable samples	All standard cells, 182*182mm2/166*166mm2/125 * 125mm2 / 156 * 156mm2 cells
Power supply	AC 220 ~ 240V, 50/60Hz
Working temperature	0 ~ 50℃
Measurement software	Yes
Functions	Measurement parameters can be selected by software
Accessories	Automatically deduct dark background
Item	Standard white board, standard gray board

4. Product picture